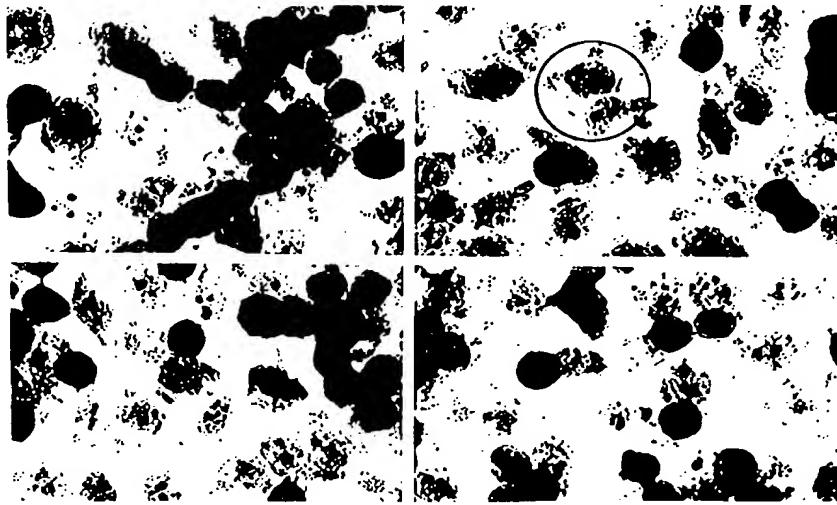


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(54) Title: VACCINES CONTAINING RECOMBINANT PILIN AGAINST *NEISSERIA GONORRHOEAE* OR *NEISSERIA MENINGITIS*

**(57) Abstract**

The *pilE* genes of each of *Neisseria gonorrhoeae* and *Neisseria meningitidis* are cloned and their corresponding recombinant pilin proteins are expressed. In addition, a chimeric *pilE* gene is constructed in which the region of the *pilE* gene of *Neisseria meningitidis* class I encoding the amino-terminal region of the pilin protein is replaced by the corresponding region of the *pilE* gene of *Neisseria gonorrhoeae*. The recombinant meningococcal chimeric class I pilin protein is expressed at higher levels than the pilin protein expressed by the full-length *pilE* gene of *Neisseria meningitidis*. Furthermore, a chimeric *pilE* gene is constructed in which the region of the *pilE* gene of *Neisseria meningitidis* class II encoding the carboxy-terminal region of the pilin protein is replaced by the corresponding region of the *pilE* gene of *Neisseria gonorrhoeae*. The recombinant pilin proteins are used in vaccines to protect against disease caused by *Neisseria gonorrhoeae* or *Neisseria meningitidis*.

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